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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,226	03/19/2002	Nigel Bruce Aldridge	2101/50769	9912

7590 10/17/2003

Crowell & Moring  
Intellectual Property Group  
PO Box 14300  
Washington, DC 20044-4300

EXAMINER

DONG, DALEI

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 10/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/088,226	ALDRIDGE ET AL.	
	Examiner	Art Unit	
	Dalei Dong	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/088,226.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-11 was received on January 22, 2002 from International Preliminary Examination Report and, Examiner is prosecuting the present application only in light of the claims 1-11 as received. Also, according to the International Preliminary Examination Report claims 12-29 have been cancelled. The Preliminary Amendment filed March 19, 2002 will be withdrawn from consideration because it does not corresponds to the claims 1-11 received on January 22, 2002 from International Preliminary Examination Report. Furthermore, Applicant has request a copy of the claims 1-11 that was received on January 22, 2002 from International Preliminary Examination Report.

### ***Specification***

2. The abstract of the disclosure is objected to because the abstract contains the word "comprises" this word should be replaced with "including" or "having". Correction is required. See MPEP § 608.01(b).
3. Applicant is reminded of the proper language and format for an abstract of the disclosure.  
  
The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

***Claim Objections***

4. Claims 4-11 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only--, and/or, -- cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

Accordingly, the claims 4-11 not been further treated on the merits.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,757,994 to Schoenwald.

Regarding to claims 1-2, Schoenwald discloses in Figure 1, "Optical coupler 10 includes a first port assembly 12, a second port assembly 14, a third port assembly 16 and a deflecting element assembly 18. The first port assembly 12 includes a ferrule 20 (*carrier*) for aligning a fiber optic cable 22 (*optical transmission means*) concentrically. The ferrule 20 positions the fiber optic cable 22 with respect to a lens 24. The fiber optic cable 22 provides connection to an optical data bus (not shown). Lensing element 24

may comprise, for example, a gradient index (GRIN) lens or a single or multi-lens assembly. The lensing element 24 expands and collimates light emerging from the fiber optic cable 22. Reciprocally, a collimated optical beam will be compressed and focused into the aperture 26 of the fiber optic cable 22. In the instance where a GRIN lens is used, the components of the port assembly 12 may be bonded with appropriate, conventional optical adhesives. Alternatively, where the lensing element 24 comprises one or more classical lenses, the assembly 12 may be physically assembled within a mechanical housing to position and align the elements as desired. The above discussion regarding port assembly 12 applies equally to the second port assembly 14 and third port assembly 16” (column 3, line 59 to column 4, line 13).

Schoenwald also discloses in Figure 1, “the deflecting element assembly 18 includes two deflecting elements 28, 30 and a retention member 32 (*carrier*). Each deflecting element, 28, 30 includes an angled, deflecting surface 34 (*optical interface surface*) to cause internal reflection and redirection of an incident light beam. Orthogonal faces 36, 38 (*optical interface surface and transmission mean from outside the carrier*) provide transmission into and out of the deflecting element assembly 18. The deflecting elements 28, 30 may be formed of glass or other suitable optically transmitting media” (column 4, lines 14-21).

Schoenwald further discloses in Figure 1, “the retention member 32 may be formed of glass or other suitable optical medium. The retention member 32 serves as a transmission medium for the optical signal and also serves to position the deflecting elements 28, 30. In operation, for example, the first port assembly 12 receives a first

optical signal 40 from the fiber optic cable 22. The optical signal 40 is expanded and collimated as it passes through the lensing element 24. The second port assembly 14 emits a predetermined transmitted portion 42 of the first optical signal 40. The deflecting element 28 and third port assembly 16 are positioned such that a deflected portion 44 of the first optical signal 40 is deflected from the deflecting element assembly 18 and directed through the third port assembly 16. The transmitted portion 42 and deflected portion 44 of the first optical signal 40 are expanded and collimated while passing through the optical coupler 10 by appropriate positioning of the lensing elements 24 to provide efficient and accurate control of the first optical signal 40” (column 4, lines 22-40).

Albeit, Schoenwald discloses separate carriers for the optical transmission means and optical processing means; however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form a single carrier or mechanical housing to support the optical transmission and processing means, since it has been held that forming one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

7. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,757,994 to Schoenwald in view of U.S. Patent No. 4,993,796 to Kapany.

Regarding to claim 3, Schoenwald discloses a composite comprising an optical transmission means embedded within a carrier, and a high-quality optical interface

surface provided within the carrier in connection with the optical transmission means, the optical interface providing a means for optical connection to the transmission means from outside the carrier.

However, Schoenwald does not disclose a protective plug provided in the passageway. It is old and well known in the art to utilize a protective plug to seal the entrance of the passageway in order to prevent any impurities entering the transmission path and damage to the optical transmission means. Furthermore, Kapany teaches, "Monitor unit 16 is a self contained unit which may be inserted into housing 21 if the monitoring function is required. If no monitoring is required, an opaque plug may close off the end of housing 21" (column 6, lines 42-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilize the opaque plug of Kapany for the optical coupler unit of Schoenwald in order to prevent any impurities entering the transmission path and damage to the optical transmission means.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art are cited to further show the state of the art of composition of an optical transmission means.

U.S. Patent No. 5,666,448 to Schoenwald.

Application/Control Number: 10/088,226  
Art Unit: 2875

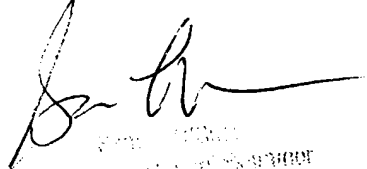
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (703)308-2870. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703)305-4939. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

D.D.  
October 1, 2003



DALEI DONG  
EXAMINER  
ART UNIT 2875  
FALL 2003